U.S. Appl. No.: 10/595,630

Attorney Docket No. LAV0313155

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the

application.

**Listing of Claims:** 

1. (Currently amended): A system for providing assistance in the regeneration of

depollution means associated with oxidation catalyst-forming means, the means being integrated

in an exhaust line of a motor vehicle diesel engine and in which the engine is associated with

common manifold means for feeding the cylinders of the engine with fuel, and being adapted at

constant torque to implement a strategy of regeneration by injecting fuel into the cylinders in at

least one post-injection, the system comprising:

· means for detecting a regeneration request and thus a request for post-injection;

· means for detecting a period in which the engine is idling;

· means for acquiring the temperature downstream from the catalyst-forming means;

· means for determining a maximum quantity of fuel to be injected-during through

post-injections while the engine is idling during this period by implementation of the strategy of

regeneration, on the basis of said temperature; and

· reduction means for progressively reducing the or each post-injection as soon as the total

quantity of fuel that has been injected through post-injections since the start of the post-injections

during this period reaches the predetermined maximum quantity.

2. (Previously presented): A system according to claim 1, wherein the reduction means are

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adapted to reduce the or each post-injection in application of a calibratable slope.

3. (Previously presented): A system according to claim 1, wherein the depollution means

comprise a particle filter.

4. (Previously presented): A system according to claim 1, wherein the depollution means

comprise a NOx trap.

5. (Previously presented): A system according to claim 1, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution means in order to facilitate regeneration thereof.

6. (Previously presented): A system according to claim 1, wherein the fuel includes an

additive forming a NOx trap.

7. (Previously presented): A system according to claim 1, wherein the engine is associated

with a turbocharger.

8. (New): A system according to claim 1, wherein the catalyst-forming means comprises

an oxidation catalyst.

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9. (New): A system according to claim 1, wherein the catalyst-forming means comprise a

NOx trap with a CO/HC oxidation function.

10. (New): A system according to claim 1, wherein the period in which the engine is idling

includes a period in which the acceleration pedal is raised.

11. (New): Method of providing assistance in the regeneration of depollution means

associated with oxidation catalyst-forming means, the means being integrated in an exhaust line

of a motor vehicle diesel engine and the engine being associated with common manifold means for

feeding the cylinders of the engine with fuel, and being adapted at constant torque to implement a

strategy of regeneration by injecting fuel into the cylinders in at least one post-injection, the

method comprising:

· detecting a regeneration request and thus a request for post-injection;

· detecting a period in which the engine is idling;

· acquiring the temperature downstream from the catalyst-forming means;

· determining a maximum quantity of fuel to be injected through post-injections during this

period by implementation of the strategy of regeneration, on the basis of said temperature;

 $\cdot \ monitoring \ the \ total \ quantity \ of \ fuel \ injected \ through \ post-injections \ since \ the \ start \ of \ the$ 

post-injections during this period and detecting a moment when the total quantity of injected fuel

reaches the predetermined maximum quantity; and

· progressively reducing the or each post-injection as soon as the total quantity of fuel that

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has been injected through post-injections since the start of the post-injections during this period

reaches the predetermined maximum quantity.

12. (New): A method according to claim 11, wherein the reduction step comprises

reducing the or each post-injection in application of a calibratable slope.

13. (New): A method according to claim 11, wherein the depollution means comprise a

particle filter.

14. (New): A method according to claim 11, wherein the depollution means comprise a

NOx trap.

15. (New): A method according to claim 11, wherein the fuel includes an additive for

becoming deposited together with the particles with which it is mixed on the depollution means in

order to facilitate regeneration thereof.

16. (New): A method according to claim 11, wherein the fuel includes an additive forming

a NOx trap.

17. (New): A method according to claim 11, wherein the engine is associated with a

turbocharger.

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18. (New): A method according to claim 11, wherein the catalyst-forming means

comprises an oxidation catalyst.

19. (New): A method according to claim 11, wherein the catalyst-forming means comprise

a NOx trap with a CO/HC oxidation function.

20. (New): A method according to claim 1, wherein the period of idling includes a period

in which the acceleration pedal is raised.